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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

METZMAIER, DANIEL S

ART UNIT	PAPER NUMBER
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1712

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DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,154

Applicant(s)

ISHITOBI ET AL.

Examiner

Daniel S. Metzmaier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-20 are pending. Claims 1-20 were subject to an oral restriction. Claims 13-20 are withdrawn from consideration at this time.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-12, drawn to a polishing composition, classified in class 51, subclass 301.
 - II. Claims 13-16, drawn to a method of making a sol composition, classified in class 516, subclass 93.
 - III. Claims 17-20, drawn to a method of making a magnetic recording device, classified in class 241, subclass 15.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Group II and Group I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the compositions may be made by methods that do not require a high-shear device.
3. Inventions of Group I and Group III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially

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different process of using that product (MPEP § 806.05(h)). In the instant case the product may be used as a filler or for polishing materials other than magnetic recording disk such as stone polishing or polishing synthetic stones.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and they have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Sheldon I. Landsman on February 13, 2003 a provisional election was made without traverse to prosecute the invention of Group I, claim 1-12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-20 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Priority

7. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on July 5, 2000. It is noted, however, that applicant has not filed a certified copy of the Japanese application as required by 35 U.S.C. 119(b).

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8. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

Drawings

9. The drawings are acceptable for examination.

Specification

10. The disclosure is objected to because of the following informalities: it is unclear where the component of the drawing denoted "2" is described in the specification. it is unclear where the component of the drawing denoted "8" is described in the specification. Also, should page 8, line 24; the "commutation plate 3" be "commutation plate 8" corresponding to the fig. 1 of are the liquid level and the commutation plate one in the same.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language of claim 1 is indefinite because it is unclear whether the composition, sol product, and/or the alumina are derived from an aluminum salt. Furthermore, it unclear how each of said respective possibilities are "derived".

Claim interpretation

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13. The following claim observations/interpretations are made here as they pertain to the following rejections. Claims 10-12 set forth the concentration of the polishing accelerator and sol product. None of the claims set forth any concentrations of the components of the sol product. The broad language of the salts forming the sol product and the polishing accelerator overlap. The preamble sets forth a polishing composition and reads on compositions that may be used for the function of polishing.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by White et al, US 2,798,049. White et al (examples and claims) discloses alumina sol compositions derived from aluminum salts, e.g., aluminum chloride or aluminum sulfate. Said sol product is a mixture of aluminum salt, e.g., aluminum chloride, in combination with aqueous ammonium. White et al (examples) discloses the salts are partially neutralized and therefore equilibrium of the various species would exist in the sol product including at least alumina, aluminum chloride with some degree of hydrolysis, and ammonia and chloride in ion form. White et al (claims) discloses alumina at a concentration of 1 to 10 % by weight and the ammonium salt at a concentration of 5 to 38% by weight. Said partial hydrolysis and concentrations read on the claimed concentrations of claims 1-12.

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Peterson (column 5, lines 28 et seq) discloses a variety of uses for the sol products. The function of the Peterson composition as a polishing agent is inherent to the disclosure of the Peterson compositions due to their colloidal particulate nature.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

18. Claims 1-2 and 10-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nissan Chemical Industries, Ltd., WO 99/35089 (hereafter Nissan). The claims are directed to a polishing composition comprising an alumina sol derived from an alumina salt. Claims directed to products by process are examined based on the product obtained rather than the

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method of making said product. The process limitations are given weight only to the extent the process limitation impart a patentable distinction to the product.

Nissan (example 1, page 16, second full paragraph) discloses alumina sols employing a polishing accelerator comprising basic aluminum nitrate.

Said sol products are derived from an aluminum salt.

Furthermore and to the extent the alumina is not derived from an aluminum salt, the disclosed alumina for polishing is a commercial alumina sol. Since, alumina is Al_2O_3 and the reference teaches the same utility as instantly disclosed and set forth in the preamble, the alumina sol of the reference reads on the claimed alumina sol. The derivation of the alumina sol has not been shown to impart patentable distinction to the otherwise known materials.

Nissan (page 12, first full paragraph) discloses the polishing accelerator is employed in a concentration of 0.1 to 10% by weight. Nissan (page 10, fifth full paragraph) discloses the concentrations of the alumina ranging from 0.5 to 20% by weight.

To the extent the Nissan compositions differ from the instant claims in the derivation of the alumina sol from an aluminum salt has not been shown to impart a patentable distinction to the compositions, which are employed in the same utility, polishing.

Nissan (page 8) discloses conventional processes may obtain the alumina hydrate. It is conventional to obtain alumina hydrate from aluminum salts and alkali

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and/or ammonia base. Said alumina produced from salts has not been shown to be distinct from the alumina disclosed in the Nissan reference.

19. Claims 1-7 and 10-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamada et al, US 5,366,542. Yamada et al (example 2 and claims) discloses polishing compositions comprising alumina dispersed in water and in combination with aluminum salts and aminocarboxylic acid salts as chelating agents and polishing accelerators. Patentees claimed concentration ranges for the alumina reads on the instant claim 11 and 12 concentration for the sol product.

Yamada et al (examples) discloses alumina dispersions employing a polishing accelerator. The disclosed alumina for polishing is an alumina dispersed in water and has a particle size of about 1.5 microns. Said dispersions read on alumina sols, which are defined as colloidal solutions. Since, alumina is Al_2O_3 , the reference teaches the same utility as instantly disclosed and set forth in the preamble; the alumina sol of the reference reads on the claimed alumina sol. The derivation of the alumina sol has not been shown to impart patentable distinction to the otherwise known materials.

To the extent the Yamada et al compositions differ from the instant claims in the derivation of the alumina sol from an aluminum salt has not been shown to impart a patentable distinction to the compositions, which are employed in the same utility, polishing.

20. Claims 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nissan Chemical Industries, Ltd., WO 99/35089 (hereafter Nissan), as applied to claims

1-2 and 10-12 above, and further in view of Peterson, US 5,669,941. Nissan discloses the compositions as set forth in the above rejections over the same reference. Said rejection is incorporated herein by reference.

Nissan differs from claims 3-9 in the species in the sol product.

Peterson (columns 15-18) discloses alumina sols and alumina particle dispersions. Peterson (column 7, lines 23-39) discloses dispersion aids including ammonium hydroxide, aluminum chlorides or basic aluminum nitrates and the concentration depends on the concentration of the surface area of the dispersed particles.

These references are combinable because they teach alumina sols and alumina dispersions. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ conventional dispersions aids as disclosed in the Peterson reference for the advantage of improving dispersion stability.

21. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al, US 5,366,542, as applied to claims 1-7 and 10-12 above, and further in view of Peterson, US 5,669,941. Nissan discloses the compositions as set forth in the above rejections over the same reference. Said rejection is incorporated herein by reference.

Yamada et al differs from claims 8-9 in the species in the sol product.

Peterson (columns 15-18) discloses alumina sols and alumina particle dispersions. Peterson (column 7, lines 23-39) discloses dispersion aids including ammonium hydroxide, aluminum chlorides or basic aluminum nitrates and the

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concentration depends on the concentration of the surface area of the dispersed particles.

These references are combinable because they teach alumina sols and alumina dispersions. It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to employ conventional dispersions aids as disclosed in the Peterson reference for the advantage of improving dispersion stability.

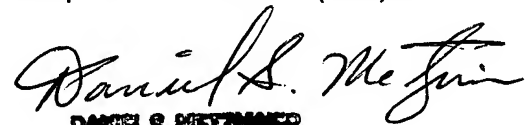
Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (703) 308-0451. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on (703) 308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


DANIEL S. METZMAIER
PRIMARY EXAMINER
ART UNIT 1712